

STATEMENT OF WORK

B.1.0. GENERAL INFORMATION

Introduction. This project is: Structural Study for Apartment Building

B.2.0. PROJECT REQUIREMENTS

B.2.1. Description of Project

Consulate General of United States of America Kolkata has a requirement for hiring the services of a structural AE to study and analyze existing apartment building for its structural stability to support load bearing walls and concrete slab on fourth floor to cover existing terrace.

Consulate has no structural drawing available for this building and contractor may have to carry out NDT to firm their findings and conclusion.

This is to share with you that the building is occupied and under no circumstance any Destructive Testing can be done on the building.

AE has to find out feasibility of construction of structural members to cover terrace on fourth floor of the building.

AE also has to share with USG any requirements or formalities to be completed, in case the building is found to be structurally stable to support covering of open terrace, per Kolkata municipal authorities or any other authority having jurisdiction in this matter.

B.2.2. General Requirements

B.2.2.1. This design is a multidiscipline effort that requires structural, architectural and engineering services to define the structural, construction and architectural facilities. In addition to the normal architectural and engineering services provided for building design, the design services required include, but are not limited to: Structural and Construction design services. If there is any inconsistency between the attachments listed herein and this section follow this section.

B.2.2.2. This design is a part of a major program undertaken by the Department of State using public funds. The Government will formally evaluate the A/E Contractor based on:

- (a) Designing to a target construction contract cost estimate;
- (b) Adhering to the delivery schedule; and
- (c) Evaluating changes occurring during construction.

B.2.2.3. The Contractor shall carefully review and coordinate drawings and specifications, and other project documents before submittal. This includes identifying

all interface points and controls between drawings and documents. The Contractor shall have a quality control program in effect, which will require his employees and consultants to thoroughly review and coordinate all project data prior to submittals. The Contractor shall correct deficiencies, ambiguities, conflicts, and inconsistencies before submitting documents or they will be rejected by the Contracting Officer. The letter of transmittal shall certify that all documents have been reviewed and coordinated prior to submittal. The certification shall be signed by a principal of the Contractor's firm. The Contracting Officer's Representative (COR) will review and approve the Quality Assurance/Quality Control (QA/QC) program proposed by the Contractor. This program shall indicate the method of controlling the quality of all work produced by the Contractor and consultants. Refer to FAR Clause 52.236-23, "Responsibility of the Architect/Engineer Contractor".

B.2.2.4. The Contractor shall produce **A2 size structural drawings**, plans and specifications. Drawings shall be segregated by buildings. The layout of individual drawings shall convey the required design and construction information. Symbols used shall be accepted international industry standards and shall be shown in the legend. Lettering shall be of sufficient size to be clearly read when drawings are reduced to half size.

B.2.2.5. Specifications shall not rely on sole-source designations to circumvent the requirement for full and open competition in the purchase of construction materials and equipment. When a sole-source manufacturer, product, or equipment is specified, the Contractor shall notify the U.S. Government in written monthly progress reports. These reports shall be accompanied by a justification explaining why sole-source acquisition is necessary and appropriate for the project. The justification shall provide the information that would be required by the Federal Acquisition Regulation (FAR Subpart 6.3). The justification must also explain why the salient characteristics of proposed sole source equipment cannot be described in the specifications. No classified work shall occur under this contract.

B.2.2.6. Except as expressly directed by the Government, the Contractor shall minimize the use of Government-furnished equipment, materials, and supplies to be provided to the construction contractor through the design of the construction documents.

B.2.2.7. Schedule requirements for this Statement of Work are contained in Section E. The "design-to" budget cost data is contained in G.2.

B.2.2.8. The Contractor shall prepare a detailed written record of all conferences and meetings with representatives of Post related to the project. The Contractor shall also document telephone conversations in which decisions affecting the project are made. The Contractor shall submit one copy of these records to the Contracting Officer's Representative (COR) within five days of the event. The written format established by the Contractor for these records will be subject to the approval of the COR. Each record shall conclude with the following statement: "The matters reported in this document are

considered by the Contractor to be within the scope of this contract as presently priced, except for as further described below."

B.2.2.9. The Contractor shall provide designs that are cost-effective as to usable space and that provide maximum flexibility for future uses. The Government will exercise particular care in consideration of these requirements in the design review and approval process.

B.3.0. SPECIAL REQUIREMENTS

B.3.1. The Contractor shall analyze the existing building for its structural stability and ability to support additional load resulting from covering of open terrace on fourth floor of the building. Contractor shall produce a design that ensures the safety and structural stability of the new structure on fourth floor. Contractor shall provide following in 60% submission for USG review

1. Basis of Design – Abstract from relative codes referred shall be shared.
2. Assumptions.
3. IBC reference.
4. NDT proposed for understand the structural health of building.
5. Abstract from codes and test reports which are referred during design as supporting documents.
6. Design Calculations – STADD Calculations.
7. Structural Drawings of the existing structure based on NDT and visual inspections.
8. Design and construction drawings for slab and other associated structural members to cover open space in fourth floor.

The Contractor shall ensure that these facilities are easy to maintain or replace with those most readily available supplies and services. The Contractor shall emphasize uniformity of parts and components to maximize interchange-ability. During the design phase the Contractor shall address operations and maintenance (O&M) considerations.

B.3.2. The Contractor shall provide specific operations and maintenance data and information for the development of a Comprehensive Maintenance Program (CMP) by the Government.

B.3.3. The Government will provide comments to the Contractor in writing and in a standard format, numbered and grouped by discipline. Review conferences will be held if deemed necessary by the COR. The Contractor shall respond to these comments in writing within 21 days for 60%, 90% and Final design submissions. The A/E contractor shall incorporate all review comments into the design and return all annotated material with the next submission. Comments not accepted by the Contractor shall be brought to the attention of the Contracting Officer's Representative in writing immediately for resolution. Decisions of the Contracting Officer to incorporate the comments considered

within the scope of work of the contract will be final. Review comments outside the existing contract scope of work will require a contract modification.

No work shall be initiated until the Government has provided review comments under each submittal. The Contractor shall provide in booklet form and 02 copies all comments and the actions taken in response to the comments.

B.4.0. EXISTING CONDITIONS: This is a four story residential apartment building on consulate compound. At fourth floor one of the apartments has an open terrace which is presently covered with metal supporting frame work and PUF panel roofing. Intent of this study is to understand the feasibility of covering that open terrace area with concrete slab.

B.4.1. Site

Government of United States of America has their consulate at 5, 5/1 and 5/2 Ho Chi Min Sarani. Out of these three compounds, 5/2 Ho Chi Min Sarani has an apartment building. This building was constructed way back sometime in mid or late forties. Consulate do not have any structural drawings for this building and is not aware of it structural health.

B.4.2. Surveys

Consulate General has a topographical survey of this compound and a copy of same can be shared with the vendor if required.

B.4.3. Geotechnical Data

N/A

B.5.0 DESIGN REQUIREMENTS

B.5.1. General Requirements

The requirements in this statement of work serve as direction to the Contractor in the development and delivery of a complete set of structural analysis, NDT test reports and Conclusion based on these reports. These documents shall provide the necessary interfaces, coordination, and communication among the designer, constructor, and special disciplines (Structural and life safety). All submittals must be of a quality to achieve this result. The Contractor shall perform its services in accordance with professional standards of skill, care, and diligence adhered to by reputable, first-class firms performing services of the same or similar nature for facilities of similar complexity. The Contractor's design shall conform to generally accepted engineering practices and the approved design criteria.

B.5.2. Design Process

The design shall consist of the following parts:

- A. 60% design completion
- B. 90% design completion
- C. Final design completion

The Contractor shall be required to make 2 copies of letter size documents and A2 size drawings with an oral presentations to the Government at Post to occur at 60% design stage.

The Contractor shall cease all design work during the Government review periods until receipt of written review comments from the Government on each of these submittals. Any design work on the project during these review periods is at the Contractor's risk. The Contractor shall consider this temporary cessation of work in its planning and scheduling.

B.6.0. SUBMITTAL REQUIREMENTS

B.6.1. 60% Submittal

Furnish drawings and other documents containing the following :

B.6.1.1. Site Plan

- Statement of visual inspection of the building structure including description of the building, program and site, and general constraints found.
- A general location plan which indicates disposal sites for fill/excavated materials and vehicle access routes to the site(s). Identify any local permits that must be obtained.
- A project site plan at a scale not smaller than 1:200 showing all improvements required plus typical perimeter enclosure sections and elevations, and site sections.
- A utility site plan at 1:200 scale showing all existing utilities and locations, water supply, electrical power, gas, sewer and both sanitary and storm drainage and telephone. Show all connections to existing utility services and location of proposed entry (no exit) for all utility services to buildings. Show all exterior utility structures including water (fire) storage, lift stations, sewage treatment, etc.

B.6.1.2. Floor Plans

N/A. If required these will be shared with the vendor awarded with this contract.

Floor plans of existing facilities at 1:100, where the project consists of additions and alterations.

A complete legend with all symbols and abbreviations used shall be shown on drawings.

B.6.1.3. Specifications

B.6.1.4. Post do not have any structural information or drawing on the building under consideration. Contractor has to prepare, conduct test or other surveys to ascertain the structural health of the building and its ability to support additional load from proposed covering of the open terrace area on fourth floor.

B.6.2. 90% Submittal

B.6.2.1. Contractor shall furnish 02 each sets of design documents in compliance with the comments made by USG on 60% submission. Contractor shall furnish manufacturers' catalogs of specified equipment and materials and all pertinent sections of codes, handbooks, standards, etc., referenced in the drawings or specifications. This is to provide information for offerors, with certain sole-source and or-equal identifications depending upon how important the equipment is to serve critical operations.

B.6.2.3. Specify all equipment, and a full description of all features - including optional and sole-source requirements. The Contractor shall list the specific manufacturer and model number (including any options) used as the basis of design in the specification for each item or type of equipment, followed by the phrase "or approved equal." Submit specifications in draft form with the 90% submittal.

B.6.2.4. Develop and provide a preliminary construction schedule at the 60% submittal based on a cost-loaded Critical Path Method (CPM) and a final schedule at the Final submittal. This schedule will be used to develop the schedule of performance.

B.6.2.5. At the 60% and 90% submittals, provide updated construction cost estimates.

B.6.2.6. Installation Drawings

B.6.3. 100% Submittal - Final Construction Documents

B.6.4. Submittal Copies

B.6.4.1. Furnish 02 bound set(s) of A2 size prints of unclassified drawings.

B.6.4.2. Furnish **02** unbound set(s) A2 size paper sepia reproducible prints of drawings.

B.6.4.3. Furnish **02** bound set(s) of half-size prints of unclassified drawings. Also furnish a CD with all the documents related to design and drawings in soft form. Drawings shall be in Auto Cad 2018 version.

B.6.4.4. Furnish separate information of the following items and furnish 02 individually bound set(s) of 8-1/2" x 11" or A4 prints of each:

- 1) Outline specifications.
- 2) Design criteria and preliminary calculations.
- 3) Written Project Design Manual.
- 4) Cost estimate.

B.6.4.5. Furnish 02 separately bound set(s) of prints of each of the following:

- 1) Soils test report indicating SBC, taken as basis of design for structural design.
- 2) Construction BOQ and budget estimate report.

The Contractor shall submit entire submission package listed above on CD-ROM.

Included as part of the 100% submittal are consultation services during the construction solicitation period. This work includes, but is not necessarily limited to:

- providing clarifications and responses to questions about the construction documents prepared by the Contractor;
- preparation of drawings or documents that may become necessary for inclusion in amendments to the construction contract solicitation as a result of such clarifications or questions; and
- attendance at the construction pre-proposal conference to be held at the Post.

B.7.0. FURNITURE AND FURNISHINGS PRICING, DOCUMENTATION, AND INSTALLATION PHASE

B.8.0. POST DESIGN AND CONSTRUCTION SERVICES

B.8.1. During the construction solicitation period, the Government may require the Contractor to provide consultation services, including providing clarifications and responses to questions about the construction documents prepared by the Contractor at no cost to Government. The Contractor shall be in attendance at the construction pre-proposal conference at no additional cost to the Government.

B.8.2. To Government reserves the right to modify the contract to add services that may be required of the Contractor during actual construction of the project. These services, known as construction phase services, may include, but are not limited to, review of shop drawings, approval of materials and equipment, and approval of proposed substitutions of materials and equipment.

B.8.3. Section A provides pricing for these services.

B.8.4. Whenever such services are required the Government will issue a modification to identify the scope of services required. Payment for these services will be negotiated in a supplemental agreement based on the scope of services, staffing needs, and duration of services.